



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,662	09/22/2001	Robert H. Gore	50773	5996
7590 11/26/2003				
S. Matthew Cairns c/o EDWARDS & ANGELL, LLP Dike, Bronstein, Roberts & Cushman, IP Group P.O. Box 9169 Boston, MA 02209				
			EXAMINER ZALUKAEVA, TATYANA	
			ART UNIT 1713	PAPER NUMBER
DATE MAILED: 11/26/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/960,662

Applicant(s)

GORE ET AL.

Examiner

Tatyana Zalukaeva

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 10-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-32 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1713

DETAILED ACTION

Response to Amendment

1. The DEclaration under 37 CFR 1.132 filed September 22, 2003 is sufficient to overcome the rejection of claims 1-7 and 9 based upon Allen et al (U.S. 6,420,441), and the reference to Allen is withdrawn from the scope of 35 USC 102 rejection.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Cassatta et al (U.S. 4,533,681).

With specific regard to claims 1, 2, 4-6 Cassatta discloses a method of making crosslinked , preferably acrylic polymer particles (abstract). For the steps of the process, attention is drawn to col.12 (B), lines 17-47, wherein the **solvent methyl amyl ketone was preliminary refluxed (temperatures sufficient to activate the initiator)**, see line 30, and to this refluxing solvent **the initiator feed** of 100 g of tert-butyl perbenzoate **was added to the monomer feed** presented in Table in col.20-25 that contains monomers and crosslinking monomer, and then the monomer feed and initiator feed was added to a refluxing solvent feed in a reactor vessel. Therefore the initiator feed and the monomer feed are combined before adding to the reaction vessel where the solution is heated to the temperature sufficient to activate the initiator. With the reference to claim 3 see Example 2, lines 54, 55, Example 3, col.13, lines 1-9,

Art Unit: 1713

Examples 4, col.13, lines 25-32. With regard to claim 9, Cassatta disclose preferred crosslinked comonomers, and among those glycidyl methacrylate in col. 9, line 23.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1713

7. Claim 7 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cassatta.

The above rejection with regard to the particle size were made in the sense of *In re Fitzgerald* (205 USPQ 594). (CAFC) or *In re Spada*, 911 F 2d 705, 709 15 USPQ 1655, 1658 (Fed. Cir. 1990), which settles that when the claimed compositions are not novel, they are not rendered patentable by recitation of properties, whether or not these properties are shown or suggested in prior art. It is the base presumption that the properties governing the claimed copolymers, if not taught, may be very well met by the copolymers of Cassatta since the copolymer particles of Cassatta are essentially the same as and are made in essentially the same manner as applicants' polymer particles.

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1, 3-6, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Saethre et al (U.S. 6,346,592).

Saethre discloses a process for making crosslinked solution polymer particles (abstract), wherein the steps of the process are best depicted by Examples A4.1 and A 4.2 in col.9:

Cross-linked PMMA Particles. It is noted that the steps of providing the feed of monomer and crosslinking agent, providing the feed of initiator are inherently present. A solution of PVP in methanol (2636.25 g) **was added to a reactor vessel** (therefore reaction vessel comprising solvent is provided) **and the mixture was boiled for 1**

Art Unit: 1713

hour (anticipates step d of the instant claim 1). The mixture was cooled to 53C before the addition of the monomer mixture of methyl methacrylate (337.50 g) and ethylene glycol dimethacrylate (0.750 g). A mixture of AIBN (9.00 g) and methanol (585.00 g) preheated to 30 was added when the temperature in the reactor was stable at 53C. This anticipates step e of claim 1 as well as presence of a solvent in the initiator feed as per instant claim 3. After 3 hours' polymerisation, the temperature was gradually increased over 3 hours to 60 C.

A solution of PVP in methanol (2636.25 g) was added to a reactor (5.00 l) and the mixture was boiled for 1 hour with an agitation speed of 50 RPM. The mixture was cooled to 53C. before the addition of the monomer mixture of methyl methacrylate (356.20 g), glycidyl methacrylate (18.75 g) and ethylene glycol dimethacrylate (0.375 g). A mixture of AIBN (9.00 g) and methanol (585.00 g) was and added when the temperature in the reactor was stable.

10. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saethre. It is the commonest of expedients to mix certain ingredients together before they are mixed into main stream to be produced. This is so well understood in many arts, as to require no extended discussion. Anyone making this mixture would follow one of four steps (order of addition) and it would be merely a matter of choice and within the skill of the art to adopt such procedure as it found most satisfactory. The results did not differ in any way, In re Hempel, 74 USPQ 171-173 (CCPA 1947). Sequence of adding ingredients is obvious.

Art Unit: 1713

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hasegawa et al (U.S. 5,043,407 and 4,988,568) disclose hydrophilic fine crosslinked gel particles; Sojka et al (U.S. 5,837,790) discloses process for making microporous crosslinked polymer particles;

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (703) 308-8819. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Tatyana Zalukaeva, Ph.D.
Primary Examiner
Art Unit 1713



November 19, 2003